

Contaminated Water

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OUTLINE

I. Intro

- A. 500 people died of cholera in just ten days in one London neighborhood
- B. Contaminated water facts
- C. Thesis – Water is a necessary part of life and maintains a person’s health but can harm in many ways, too; therefore, taking precautionary measures and filtering water is extremely important. The EPA must work hard to oversee the standards for the country’s clean water supply.

II. Body

- A. Background— Definition of "contaminant" is any physical, chemical, biological or radiological substance or matter in water.
- B. Cleaning process
 - 1. Recycle, correctly dispose, use nontoxic household products
 - 2. How farmers keep water clean
 - 3. Clean river, lakes, streams
 - 4. Appropriate filtering
- C. Death and sickness
 - 1. In developing countries, about 80% of illnesses are linked to poor water and sanitation conditions
 - 2. Flint, Michigan example
- D. Effects
 - 1. PCE
 - 2. Bangladesh’s study
 - 3. TCE
 - 4. Neurobehavioral impairment
- E. EPA regulations
 - 1. The Safe Drinking Water Act
 - 2. Lower-income communities
 - 3. Take a portion of the money from programs, such as welfare or Planned Parenthood

III. Conclusion

- A. Review all main points
- B. Restate thesis—Contaminated drinking water is an issue for many people in the world because it makes people so ill, so the important things are the cleaning and prevention process. The EPA does a good job regulating the water supply, and it is imperative that they continue to be funded to ensure the water is always safe.

“500 people died of cholera in just ten days in one London neighborhood, marking the beginning of another dreaded epidemic” (Loranger, 2005). This is just one example of how contaminated water affects a person. People should learn from this case and realize contaminated water is a huge problem that they should take more seriously. Many things can contaminate drinking water, all being very dangerous. Adults as well as children should get tested for various toxins yearly. Water is a necessary part of life and maintains a person’s health but can harm in many ways, too; therefore, taking precautionary measures and filtering water are extremely important, and that is why the EPA must continue to work hard to oversee the standards for the country’s clean water supply.

It is important that people know about the prevention process and how we can get clean water. People pollute many common areas, such as streams, rivers, and lakes, on a regular basis. The water that should be pure is now being polluted by careless people. Disposing of waste into bodies of water is lazy and inconsiderate of others’ health or well-being. It takes a huge amount of money and time to remove the waste from water. Waste removal from water also uses expensive supplies to make sure everything is done properly. Usually, the damage causes the water to be too contaminated to be ever used as a drinking source. Well-protected lakes, rivers, and streams are important so that drinking water can be clear and fresh. Appropriate water filtering, maintenance, and circulation all have to come together to provide affordable and safe water (“Preventing Contamination of Drinking Water Resources,” 2016). “Creating buffers, like plants and trees that stand between farms and the water, may help catch fertilizer chemicals before they get into water ways, spurring algae growth. Farmers could also use less fertilizer, though there are no regulations in place as of now” (Sifferlin, 2014). This

approach has been referred to as the new look on farming. “Another way to prevent water contamination is recycling and dispose of all trash properly, correctly dispose of hazardous household products, and use nontoxic household products whenever possible” (“How to Clean Up Our Water,” 2012). Always dispose of all toiletries before flushing the toilet because it can pollute beaches and drinking sources. Pet waste is important to clean up, too, as it can build up in storage drains and get into the water supply. Keep all chemicals, paints, and other hazards out of sinks and drains. Lastly, harmful products should be disposed of immediately after use or just not bought at all (“How to Clean Up Our Water,” 2012). “Four out of every five deaths are the result of water-related disease. This means that approximately 6 million people die every year because of contaminated water” (Loranger, 2005). In order to have clean water, Dr. Andrew Hayward says that people need a good use of energy, cleanliness, and correct supplies. This statement is very true because without any of these things, the drinking supply would not be safe. Water resources are getting scarce; this is why people are seeing more and more effects of contaminated water today (Loranger, 2005). The United States Environmental Protection Agency started the “Drinking Water Lead Reduction Plan” to make water in homes updated, stronger, and cleaner (“U.S. EPA to Strengthen Protection For Lead In Drinking Water,” 2005). Preventing contaminated water from coming into a home is extremely important; this information can save a person from becoming very sick.

Many people get sick from where they consider the cleanest and safest place a person can be, their home. “In developing countries, about 80% of illnesses are linked to poor water and sanitation conditions” (“Water and Disease,” n.d.). This proves water pollution is happening in our everyday lives. Not only is this an issue in developing countries; problems like

this occur in America as well. LeeAnne Walters was washing her dishes on a December night when she found her water brown and reeking of rotten eggs. She later found out the lead levels in her water were ten times over the average amount and soon realized she and her family were all drinking, cooking, and bathing with toxic water. The city of Flint was on Detroit water supply until they decided to change to the Flint River as a cost-saving measure.

Obviously, the city switched back to Detroit water, but unfortunately, the water is still not safe enough to drink out of the faucet. Thousands of bottles of water are sent to this little city in Michigan every day. Walters is now lobbying Congress for stricter regulations so that this doesn't happen to any other family. This was the worst recorded water contamination the nation has ever seen (Egan, 2016). Water pollution is not a joke, and if a person is put in the wrong circumstances, he or she could suffer the consequences severely.

Contaminated water can have many different effects on a person's body, all being dangerous. A study was done to consider the effects of babies being exposed to perchloroethylene (PCE) in drinking water. The tests showed increased signs of epilepsy and cervical cancer in adults who were exposed to perchloroethylene as a child. Other studies similar to this found more people who had been exposed to this, who had medical conditions confirmed by a doctor (Aschengrau, Winter, Vieira, Webster, Janulewicz, Gallagher & Ozonoff, 2015). The majority of Bangladesh's wells are contaminated with arsenic. Participants were selected who were exposed to the toxic water and tested for various things. They tested their signs and symptoms, and sadly the evidence that was found was not good. It showed the people had a prevalent ratio for chronic cough and chronic bronchitis. The individuals with a higher intake of the contaminated water are more likely to develop chronic bronchitis, rather

than just a chronic cough (Milton & Rahman, 2002). If a person has been exposed to trichloroethylene (TCE) or other solvents, it can damage neurobehavioral conduct. Drinking water contaminated with trichloroethylene has been linked to causing impaired blinking reflex, birth defects, and cancers. They expanded their research and studied the effects of neurophysiological (NPH) and neuropsychological (NPS). “Without time away from exposure for metabolism and excretion of toxins, was associated with neurobehavioral impairment” (Kilburn & Warshaw, 1993). The effects of contaminated water can cause many illnesses, cancers, brain damage, and can even be deadly.

As a country, it is the leader’s responsibility to make sure that every citizen has clean drinking water flowing from their faucets. In order to help assure this gets done, the EPA helps to regulate water by The Safe Drinking Water Act (SDWA). This is a system that EPA uses to name unregulated solvents and remove them from people’s tap water (“How EPA Regulates Drinking Water Contaminants,” 2015). The EPA should assist lower-income communities that struggle with outdated equipment, which often experience unsafe water advisories warning (this is when the city mandates the water is not safe to drink). The EPA should also make funds available to each state so they can ensure their water treatment facilities are in proper working order. If the funds were available to each state, they could take a portion of the money from programs, such as welfare or Planned Parenthood, and use it for bettering the state’s water supply. Although there are areas that can be improved, for the most part, the nation’s leaders do a fine job of keeping our water safe.

In conclusion, contaminated water is a huge threat to our country and needs to have the proper people, equipment, and funds to fix the issue. Clean water is imperative to a healthy

life. If people do not have access to clean water, they will not thrive, thus making water the most important factor to survive. Water pollution can make a people very sick, and they should seek medical help immediately, if contaminated. The effects contaminated water has on the human body can cause dangerous and long-term repercussions. It can lead to so many problems and eventually death, if not treated. The Environmental Protection Agency is tasked with protecting our nation's water. With a few isolated exceptions, they do an adequate job. Contaminated drinking water is an issue for many people in the world because it makes people so ill, so the important things are the cleaning and prevention processes. The EPA does a good job regulating the water supply, and it is imperative that they continue to be funded to ensure the water is always safe.

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